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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,099	12/21/2001	Norbert Apfel	A91206	7476

7590

09/09/2003

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EXAMINER

HAMILTON, ISAAC N

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 09/09/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant(s)

10/026,099

Examiner

Isaac N Hamilton

Applicant(s)

APFEL ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 11-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Objections to the drawings are rendered moot due to the cancellation of claims 8-10.

Specification

2. The incorporation of essential material in the specification, page 13, by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 7, 12-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson et al (4,594,843), hereafter Andersson, in view of Ely (3,302,377). Andersson

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discloses a main body of metal 2 in figure 1 and column 2, lines 46-51; opening 1; blade sections 4, 6, 7, 8, 9, 11, 12; bead-like embossment 3; radially outer cutting edges 7. Andersson does not disclose cutting edges. Ely teaches cutting edges 41, 40 in figure 2. It would have been obvious to provide cutting edges in Andersson as taught by Ely in order to provide a blade assembly that is efficient in operation. Note column 2, lines 28-29. Additionally, Ely teaches circle-shaped radial ends 35, 42; radius of radial ends is less than radius of cutting blade path is inherent in figures 2 and 3; radially inner edges are additional cutting edges 40, 41. Andersson discloses cutting blades extending in a trapezoidal tapering manner in figure 1; radially inner edges are on the outside of blade sections 4; radially inner edges merge in an angular manner with outer edges 7 as shown in figure 1; radially outer edges merge in an angular manner with radial ends, which are opposite projection portion 12 of the wing portion 8 of blade section 6; uniform depth of embossment in figure 2; embossment approximately three-fourths the length of the blade sections; embossment is on two sides of blade section in figure 1; circular disk-shaped embossment about opening 1 in figure 1; diameter of circular embossment is three times larger than diameter of opening in figure 1; bead-like embossments merge into circular embossment in figures 1 and 2; note changing contour from edge 7 to edges on the outside of blade sections 4 to body portion 2; the outside of body portion 2 had blunt edges.

5. Claims 21 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andersson in view of Ely. Andersson discloses a main body of metal 2 in figure 1 and column 2, lines 46-51; opening 1; blade sections 4, 6, 7, 8, 9, 11, 12; bead-like embossment 3; cutting edge 7; radially inner edges on either side of blade section 4. Andersson does not disclose radially inner cutting edges and does not disclose radially outer edges, however, Ely teaches radially

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inner cutting edges 40, 41 and teaches radially outer edges 42, which can be provided on the wing portions opposite projection portions 12 of blade section 6 of Andersson. It would have been obvious to provide radially inner cutting edges and radially outer edges in Andersson as taught by Ely in order to provide a blade assembly that is efficient in operation. Note column 2, lines 28-29.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Andersson in view of Ely as applied to claims 1-5, 7, 12-16 and 18-20 above, and further in view of Thorud et al (3,910,017), hereafter Thorud. The combination teaches everything as noted above, but does not teach an embossment having a decreasing width. However, Thorud teaches embossment that has a decreasing width 30. It would have been obvious to provide an embossment that has a decreasing width in the combination as taught by Thorud in order to improve aerodynamic characteristics. Note column 1, lines 35-46.

Allowable Subject Matter

7. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac Hamilton whose telephone number is 703-305-4949. The examiner can normally be reached on Monday thru Friday between 8am and 5pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 703-308-1082.

In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9306. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-308-1148.

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September 8, 2003



Allan N. Shoap
Supervisory Patent Examiner
Group 3700